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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/534,705

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Mun-Pyo Hong

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EXAMINER

HU, SHOUXIANG

ART UNIT

PAPER NUMBER

2811

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/534,705	<b>Applicant(s)</b> HONG ET AL.	
	<b>Examiner</b> Shouxiang Hu	<b>Art Unit</b> 2811	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 13-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/10/2007</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 13-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on March 04, 2008.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-12, insofar as being supported by the elected species, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 recites the subject matter of "a data wire insulated from the gate wire and intersecting the data wire", but the disclosure lacks an adequate description regarding how a data wire could intersect the data wire itself or intersect any other data wire.

Claim 7 recites the subject matters of "a gate insulating layer formed on the gate wire" and that recited the gate wire includes "a gate connection formed on the same

layer as the data wire”; but these subject matters appear to contradict to each other, given that at least a portion of the recited gate insulating layer is formed under, instead of “on”, at least a portion of the recited gate connection of the recited gate wire in the instant invention (see the gate insulating layer 140 under at least a portion of the gate connection 120 in Fig. 1).

Furthermore, the subject matter of “a gate connection formed on the same layer as the data wire” recited in the claim also lacks full support in the disclosure, given that the recited gate connection is not formed on the same layer as the data connection portion (170) of the recited data wire in the instant invention.

Claim 8 recites the subject matter of “a data connection formed on the same layer as the gate wire”; but it lacks full support in the disclosure, given that the recited data connection is not formed on the same layer as the gate connection portion (120) of the recited gate wire in the instant invention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-12, insofar as being supported by the elected species, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the subject matters of a gate wire including a plurality of gate portions, and a thin film transistor connected to the gate wire and the data wire, which

appear to imply that the recited gate portion(s) is/are not a part of the recited thin film transistor. And, it fails to clarify: whether the recited thin film transistor definitely includes any of the recited gate portions; and/or, which portion(s) of the recited gate wire the recited thin film transistor is definitely connected to.

Claim 5 recites the limitation "the gate portions" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 5-8 each recite the term of "formed on the same layer", but fails to clarify which two layer/elements recited in the claims are definitely formed of/in/from a same layer, rather than the case of one being on the other.

Claim 7 recites the subject matter that "a third contact hole exposing the gate wire"; but it fails to clarify: whether the third contact hole exposes the entirety of the gate wire; and/or, which portion of the recited gate wire is definitely exposed by the recited third contact opening.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-6, insofar as being in compliance with 35 U.S.C. 112, are rejected under 35 U.S.C. 102(b) as being anticipated by Koyama (US 2001/0017372 A1).

Koyama discloses a thin film transistor array panel (Figs. 1-7), comprising: an insulating substrate (501 and/or 502); a gate wire (519, 516, 513) formed on the insulating substrate and including a plurality of gate portions (513) and a gate connection (519 or 516) connecting the gate portions; a data wire (512, 520) insulated from the gate wire and intersecting the data wire; a thin film transistor (601) connected to the gate wire and the data wire; and a pixel electrode (523) electrically connected to the thin film transistor (through TFT 602).

Regarding claim 2, it is further noted that the data wire comprises a plurality of data portions (520 or 512) and a data connection (512 or 520) connecting the data portions.

Regarding claim 3, the above thin film transistor array panel further comprises a gate insulating layer (511) insulating the gate wire and the data wire and naturally including a plurality of portions.

Regarding claim 4, the above thin film transistor array panel further comprises a passivation layer (517 and/or 518) covering the thin film transistors and naturally including a plurality of portions.

Regarding claim 5, insofar as being in compliance with 35 U.S.C. 112, in the above thin film transistor array panel, the gate connection (519) is formed in/of/from the same layer as the data portions (520).

Regarding claim 6, insofar as being in compliance with 35 U.S.C. 112, in the above thin film transistor array panel, the data connection (512) is formed of a same layer as the gate portions (513).

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References B-E are cited as being related to a TFT device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shouxiang Hu whose telephone number is 571-272-1654. The examiner can normally be reached on Monday through Friday, 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Gurley can be reached on 571-272-1670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shouxiang Hu/  
Primary Examiner, Art Unit 2811